

Notice of Allowability

Application No.

09/676,526

Applicant(s)

LIU ET AL.

Examiner

Brian L. Mutschler

Art Unit

1753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10/14/04.
2. ☒ The allowed claim(s) is/are 2-5, 10, 11 and 13-22.
3. ☒ The drawings filed on 06 September 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

The application has been amended as follows:

In the claims:

- a. Please cancel claims 1 and 6-9. These claims were withdrawn following an election without traverse.
- b. Claim 12 was cancelled in the amendment dated October 14, 2004.
However, the text of the claim appears in the amendment. Please replace the claim text with --Claim 12. (cancelled)--.

2. The following is an examiner's statement of reasons for allowance:

Claims 2-5, 10, 11, and 13-22 are distinguished over the prior art of record because they provide a method for automatically calibrating a separation apparatus neither taught nor suggested by the prior art of record. Each of the independent claims requires, *inter alia*, steps of normalizing light intensities of detected spectra, comparing/identifying the normalized spectra, and clustering spectra. The claims require identifying and/or clustering peaks that do not have corresponding normalized values differing by more than at least one similarity criterion. Labrenz (U.S. Pat. No. 6,333,501) discloses a method for calibrating separation apparatus, comparing spectra

and clustering by "keep[ing] only those peaks that pass some heuristic requirements" (col. 8, lines 32-43). However, the method of Labrenz does not teach or suggest normalizing the spectra prior to comparing or identifying values in the spectra. Simpson et al. (U.S. Pat. No. 6,017,434) also disclose a method for calibrating separation apparatus, wherein the method comprises automatically or manually tagging events. Simpson et al., however, do not teach normalizing spectra prior to comparing and clustering the spectra. Sharaf et al. (U.S. Pat. No. 6,821,402) disclose a method for calibrating separation apparatus comprising the steps of collecting a plurality of spectra and summing the intensities of the signals to obtain a total emission temporal profile (col. 7, lines 18-61). The method then selects reference peaks to calibrate the apparatus (col. 7, line 18 to col. 8, line 12). Therefore, the method of Sharaf et al. differs from the instant invention because the spectra are not normalized and compared prior to clustering the spectra; all of the spectra are used for the calibration. The prior art of record does not teach or suggest the combination of steps recited in the instant claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian L. Mutschler whose telephone number is (571)

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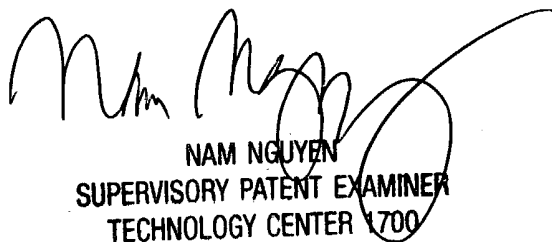
272-1341. The examiner can normally be reached on Monday-Friday from 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BLM

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November 26, 2004


NAM NGUYEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700